

Miscellaneous taxonomic and nomenclatural notes for Myrtaceae

Neil Snow¹ & J.F.Veldkamp²

Summary

Snow, N. & Veldkamp, J.F. (2010). Miscellaneous taxonomic and nomenclatural notes for Myrtaceae. *Austrobaileya* **8**(2): 177–186. Typifications are provided for *Psidium cattleianum* Sabine and *P. guineense* Sw. from Brazil and the Caribbean respectively. *Episzygium oahuense* Suess. & A.Ludw. is confirmed as being a synonym of *Psidium cattleianum*, not of *Eugenia*. Two varieties of *P. cattleianum* from Brazil are reduced to synonymy. New combinations are made in *Gossia*, *Syzygium* and *Xanthomyrtus* for a number of species from Malesia and Melanesia. For *Syzygium* these include *S. thompsonii* (Merr.) N.Snow (including *Eugenia trukensis* Hosokawa, syn. nov.) based on *E. thompsonii* Merr.; *S. bifarium* (Wall.) Veldk. based on *E. bifaria* Wall., which is neotypified; and *S. melastomatifolium* (Blume) Veldk., which is based on *Jambosa melastomatifolia* Blume. *Xanthomyrtus kanalaensis* (Hochr.) N.Snow comb. nov., based on *E. kanalaensis* Hochr., is the older and correct name for the endemic species on New Caledonia formerly known as *X. hienghenensis* Guillaumin. New combinations for Melanesian species of *Gossia* are provided, including *G. alaternoides* (Brongn. & Gris) N.Snow, *G. alaternoides* var. *conspicua* (Vieill. ex Guillaumin) N.Snow, *G. alaternoides* var. *pulchrifolius* (Guillaumin) N.Snow, *G. aphthosa* (Brongn. & Gris) N.Snow, *G. clusioides* (Brongn. & Gris) N.Snow, *G. colnettiana* (Guillaumin) N.Snow, *G. diversifolia* (Brongn. & Gris) N.Snow, *G. kuakuense* (Vieill. ex Guillaumin) N.Snow (an older name for a basionym for the species recently known in New Caledonia as *Austromyrtus cataractarum*), *G. nigripes* (Guillaumin) N.Snow, *G. pancheri* (Brongn. & Gris) N.Snow, *G. vieillardii* (Brongn. & Gris) N.Snow (which is shown to be the same taxon as the later named *G. aneityensis* (Guillaumin) N.Snow in Vanuatu), and *G. virotii* (Guillaumin) N.Snow. An expanded description based on fruiting material is provided for *Rhodomyrtus kaweaensis* N.Snow from Papua New Guinea. Taxonomic boundaries in the context of morphological and molecular variation are discussed for *Rhodomyrtus montana* Guym. and *R. misimana* N.Snow from New Guinea.

Key Words: Myrtaceae, *Gossia*, *Psidium*, *Rhodomyrtus*, *Syzygium*, *Xanthomyrtus*, *Gossia alaternoides*, *Gossia alaternoides* var. *conspicua*, *Gossia alaternoides* var. *pulchrifolius*, *Gossia aphthosa*, *Gossia clusioides*, *Gossia colnettiana*, *Gossia diversifolia*, *Gossia kuakuense*, *Gossia nigripes*, *Gossia pancheri*, *Gossia vieillardii*, *Gossia virotii*, *Psidium cattleianum*, *Psidium guineense*, *Rhodomyrtus kaweaensis*, *Rhodomyrtus misimana*, *Rhodomyrtus montana*, *Syzygium bifarium*, *Syzygium melastomatifolium*, *Syzygium thompsonii*, *Xanthomyrtus kanalaensis*, *Xanthomyrtus hienghenensis*, Brazil flora, Caribbean flora, Malesia flora, Melanesia flora, New Caledonia flora, New Guinea flora, taxonomy, nomenclature, new combinations

¹N.Snow, Herbarium Pacificum, Bishop Museum, 1525 Bernice Street, Honolulu, HI 96817, USA. Email: neil.snow@bishopmuseum.org

²J.F.Veldkamp, Netherlands Centre for Biodiversity Naturalis (section NHN), Leiden University, P.O. Box 9514, 2300 RA Leiden, The Netherlands. Email: veldkamp@nhn.leidenuniv.nl

Introduction

Recent curatorial work has uncovered several taxonomic situations in Myrtaceae that now can be clarified or addressed. A number of new combinations also now can be made available as a precursor to a longer treatment of *Gossia* N.Snow & Guym. for New Caledonia that will be forthcoming from the first author. We bring this information together here in a single

paper given that an appropriate publication venue for its individual components might otherwise be delayed.

1. Typification of *Psidium cattleianum* Sabine

Despite its widespread cultivation and abundance as a serious weedy tree in many parts of the world (Weber 2003; Tassin *et al.* 2006) and its inclusion in many recent Floras (e.g., Jie & Craven 2007; Landrum 2009), the type status of this taxon previously has not been

clarified. Designation of a type at the present time will obviate others from tracking down its history or await its publication at a later time. The new varieties proposed by Mattos (1981, 2007) appear to be of no taxonomic significance, representing slight variations in fruit shape (Mattos 1981) or colour (Mattos 2007: 5) of this widespread species.

Psidium cattleianum Sabine, *Trans. Hort. Soc. London* 4: 315, t. 11 (1821); Weinm. in Hornsch., *Syll. Pl. Nov.* 2: 166 (1825) (“*cattleyanum*”), *orth. var.*; *Guajava cattleiana* (Sabine) Kuntze, *Revis. Gen. Pl.* 1: 239 (1891) (“*cattleyana*”). **Type:** *Trans. Hort. Soc. London* 4: t. 11 (1821) (lecto: here designated [digital copy of plate viewed]).

Episzygium oahuense Suess. & A.Ludw., *Mitt. Bot. Staatssamml. München* 1: 18 (1950). **Type:** Hawaii, Oahu, Waianae, February 1930, A.K.Meebold 8545 (holo: M [viewed digitally], barcode M-0164198; “8445”).

Eugenia pseudovenosa H.Perrier, *Mem. L'Institut. Scient. de Madagascar, Sér. B, Tome IV, Fasc.* 2:180 (1952 [1953]), **syn. nov.** **Type:** Madagascar, Fianarantsoa: Vestiges de la forêt littorale au voisinage de l'embouchure de Fanantara, H.Perrier 6516 (holo: P!).

Psidium cattleianum (as *cattleyanum*) Sabine var. *pyriformis* Mattos, *Loefgrênia* 76: 1 (1981; see also pp. 2–3 regarding errata), **syn. nov.** **Type:** Brazil, Rio Grande do Sul, Santa Maria, cult., 30 July 1977, A.Fisher s.n. (holo: IPNR n.v.).

Psidium cattleianum (as *cattleyanum*) Sabine var. *purpureum* Mattos, *Loefgrênia* 124: 4 (2007), **syn. nov.** **Type:** Brazil, Santa Catarina, cult. em Jurerê Internacional, Florianópolis, 5 May 2007, J.Mattos 32737 (holo: FLOR n.v.; iso: HBR n.v.).

The spelling “*cattleianum*”, not “*cattleyanum*”, is the original and thus the correct orthography (Art. 60.1, Ex. 9–12.). *Guajava cattleyana* (Sabine) Kuntze (1891) and *Psidium cattleyanum* Weinm. (1828) are both included in IPNI (as “Weinw.” for the latter) but are merely orthographic variants.

The protologue indicates the description was based on “a plant cultivated by Messrs. Barr & Brookes, of Ball’s Pond, Newington,

England, said to have come as seeds from China”. Lindley, however, in 1824 corrected this to “a native of some parts of South America”. Green (1994) and Jie & Craven (2007) have indicated that the species is native to Brazil.

The taxonomy and nomenclature of *Psidium cattleianum* has fluctuated significantly. For example, Wagner *et al.* (1999: 971) did not recognize infraspecific taxa for Hawaii. Britton & Wilson (1925) recognized *P. littorale* Raddi as a taxon distinct from *P. cattleianum*. Others have recognized *P. cattleianum* var. *littorale* (Raddi) Fosberg for populations with somewhat longer petioles and longer leaf blades, which also bear more yellowish fruits at maturity (e.g., Fosberg 1962; Green 1994; see also Burkill [1997], who indicated the species as having “a number of varieties, distinguished on fruit shape”). The lectotypification here applies specifically to red-fruited material. An illustration of the yellow-fruited taxon was provided in the protologue by Raddi, but we have not reviewed the details of its typification.

Merrill & Perry (1938) regarded *Psidium littorale* Raddi to predate Sabine, as they thought it had appeared in 1820. According to Stafleu & Cowan (1983), Raddi’s paper was published in 1821 and reprinted in 1823. Raddi (1823) described the fruit as “verde-giallognola” (green yellowish; Dr. R.M.Baldini, FI, pers. comm.). The comments by Schroeder (1946), who argued that the epithet *cattleianum* predates that of *littorale*, have been followed by many (Jie & Craven 2007). As it cannot be shown with absolute certainty which of the two papers was first, Preamble 10 (McNeill *et al.* 2006) applies “In the absence of a relevant rule or where the consequences of rules are doubtful, established custom is followed” and *P. cattleianum* is accepted here.

Warren L. Wagner (in 1986, then at BISH) was the first to annotate the holotype of *Episzygium oahuense* as a synonym of *P. cattleianum*, a decision with which we agree. Govaerts *et al.* (2008: 80, 162) incorrectly cited it as a synonym of *Eugenia reinwardtiana* (where it appears misspelled in both places as “*cahuense*”). Although

A.J.Scott first annotated the type specimen of *Eugenia pseudovenosa* in August of 1978 to be “*Psidium* sp., near *cattelianum* Sabine”, and this interpretation of synonymy was on Wikispecies (2010) by October 2010, this appears to be the first report in print of its synonymy (i.e., contra Govaerts et al. 2008: 159). The tearing of sepal lobes on the specimen at P is quite evident, and the leaf size, shape, and venation matches perfectly with our concept of the species. Additional synonymy of *P. cattelianum* can be found in Govaerts et al. (2008: 349).

2. The type of *Psidium guineense* Sw.

Recommendation 9A.4. (McNeill et al. 2006), states “When a single collection is cited in the protologue, but a particular institution housing this is not designated, it should be assumed that the specimen housed in the institution where the author is known to have worked is the holotype, unless there is evidence that further material of the same collection was used”. We designate it here.

***Psidium guineense* Sw., Prodr. 77 (1788);** *Guajava guineensis* (Sw.) Kuntze, *Revis. Gen. Pl.* 1: 239 (1891); *Myrtus guineensis* (Sw.) Kuntze, *Revis. Gen. Pl.* 3(3): 91 (1898); *Mosiera guineensis* (Sw.) Bisse, *Rev. Jard. Bot. Nac.* 6(3) 4 (1985). **Type:** “In Domingo culta”, Swartz s.n. (holo: S [S-R.5302, viewed digitally]; http://www.nrm.se/en/menu/researchandcollections.54_en.html).

The holotype specimen has “Culta in Hispaniola” written on it, whereas the protologue indicates “*in Domingo culta*”.

3. *Xanthomyrtus kanalaensis* (Hochr.) N.Snow is the correct name for *X. hienghenensis* Guillaumin

Snow et al. (2003: 84) incorrectly suggested that *Eugenia kanalaensis* Hochr. was a member of *Uromyrtus* Burret. In fact, *Eugenia kanalaensis* is an earlier legitimate name for the same taxon known for many years as *Xanthomyrtus hienghenensis* Guillaumin, and thus a new combination is required in *Xanthomyrtus*.

Before discussing this taxonomic situation further it is important to reiterate that Vieillard designated numbers to taxa (as he

perceived them), not to individual collections of specimens (Tirel & Veillon 2002: 175–176). Thus one or more specimens bearing the number 2627 were not necessarily from a single gathering made at the same time (Art. 8.2; McNeill et al. 2006). The lectotype specimen designated below for *Xanthomyrtus kanalaensis* is housed at NY and is one of two duplicates that Hochreutiner (1910) explicitly cited (the other being at K) as the basis for *X. kanalaensis*. Scott (1979: 477) indicated the same number (Vieillard 2627) as the type specimen for *X. hienghenensis* var. *latifolia* Guillaumin, given that Guillaumin explicitly cited Vieillard 2627 as a syntype for *X. hienghenensis* var. *latifolia*. However, Scott was incorrect to cite it as the holotype, given that syntypes were clearly indicated in the protologue. This error is correctable under Art. 9.8 (see below). Lectotypification does not retroactively make names superfluous (Art. 52.2; McNeill et al. 2006).

The specimen in NY cited by Hochreutiner (1910) confirms that it is conspecific with *Xanthomyrtus hienghenensis* Guillaumin. In reality there are two specimens of this number at NY. One is a part of herbarium NY (proper), whereas the other, which also is now housed at NY, was part of the herbarium of the former Columbia College of Pharmacy Herbarium, which was transferred to NY in 1945.

***Xanthomyrtus kanalaensis* (Hochr.) N.Snow comb. nov.;** *Eugenia kanalaensis* Hochr., *Bull. New York Bot. Gard.* 6: 280 (1910); *Austromyrtus kanalaensis* (Hochr.) Burret, *Notizbl. Bot. Gart. Berlin-Dahlem* 15: 504 (1941). **Type:** New Caledonia, Montagnes du lac à Kanala, 1861–1867, E.Vieillard 2627 (lecto: NY [barcode no. 00405167], designated here; duplicates of lecto: NY [barcodes no. 01163693 and probably also 01163693; the latter in the same hand as designated lectotype but indicating only “Montagnes à Kanala”], K n.v., P n.v.).

Xanthomyrtus hienghenensis Guillaumin, *Bull. Soc. Bot. France* 81: 16 (1934); *X. hienghenensis* var. *hienghenensis*, Guillaumin, *loc. cit.* 17. **Type:** New Caledonia, Hiengène, *s.dat.*, *A.Le Rat s.n.* (lecto: P; duplicates of lecto: L, P [designated by Scott (1979: 477)]).

Xanthomyrtus hienghenensis Guillaumin var. *latifolia* Guillaumin, *Bull. Soc. Bot. France* 81: 17 (1934). **Type:** New Caledonia, Canala, *s.dat.*, *E.Vieillard* 2627 (lecto: P, designated indirectly by Scott [1979: 477]; duplicates of lecto: K n.v., NY).

Xanthomyrtus kanalaensis is the sole representative of the genus in New Caledonia (Scott 1979).

4. New combinations in Melanesian *Gossia*

A forthcoming treatment of *Gossia* in *Flore de la Nouvelle-Calédonie* will describe a number of new taxa. New combinations are provided here for species previously described in other genera, primarily *Myrtus* L. or *Austromyrtus* Burret.

Gossia alaternoides (Brongn. & Gris) N.Snow **comb. nov.**; *Myrtus alaternoides* Brongn. & Gris, *Bull. Soc. Bot. France* 12: 177 (1865); *Austromyrtus alaternoides* (Brongn. & Gris) Burret, *Notizbl. Bot. Gart. Berlin-Dahlem* 15: 504 (1941). **Type:** New Caledonia, Montages de Balade, 1855–1860, *E.Vieillard* 495 (holo: P).

Gossia alaternoides (Brongn. & Gris) N.Snow var. ***conspicua*** (Vieill. ex Guillaumin) N.Snow **comb. et stat. nov.**; *Myrtus conspicua* Vieill. ex Guillaumin, *Bull. Soc. Bot. France* 85: 631 (1939 [1938]); ? *Austromyrtus conspicua* (Vieill. ex Guillaumin) Burret, *Notizbl. Bot. Gart. Berlin-Dahlem* 15: 505 (1941). **Type:** New Caledonia, montagnes de Ouatende, près Gatope, *s. dat.*, *E.Vieillard* 2618 (holo: P; iso: BM, GH, P).

Gossia alaternoides (Brongn. & Gris) N.Snow var. ***pulchrifolius*** (Guillaumin) N.Snow **comb. et stat. nov.**; *Myrtus pulchrifolius* Guillaumin, *Mém. Mus. Nat. Hist. Nat., Paris, ser. B, Bot.* 8: 144 (1959), *Mém. Mus. Nat. Hist. Nat., Paris, ser. B, Bot.* 8: 289 (1962), (“*pulchrefolius*”). **Type:** New Caledonia, au dessus du campement Bernier (Montagne des

Sources), 3 October 1951, *H.Hürlimann* 3021 (lecto: P [here designated]; duplicates of lecto: A, NY, P, US, Z).

The correct spelling is *pulchrifolius* (not *pulchrefolius*) following Art. 60.8, Rec. 60G.1(a)(2); (McNeill *et al.* 2006). In 1959 Guillaumin cited *MacKee* 3337. Since Guillaumin in 1962 also cited his 1959 publication, the former is part of the protologue and therefore provided a syntype. The selection of *Hurlimann* 3021 here is therefore a lectotypification.

Gossia apthosa (Brongn. & Gris) N.Snow **comb. nov.**; *Eugenia apthosa* Brongn. & Gris, *Bull. Soc. Bot. France* 13: 469 (1866); *Austromyrtus apthosa* (Brongn. & Gris) Burret, *Notizbl. Bot. Gart. Berlin-Dahlem* 15: 504 (1941). **Type:** New Caledonia, colline de Wagap *s.dat.*, *E.Vieillard* 2172 (holo: P; iso: A, B, GH, L [3 sheets]; MEL, P, Z).

Gossia clusioides (Brongn. & Gris) N.Snow **comb. nov.**; *Eugenia clusioides* Brongn. & Gris, *Bull. Soc. Bot. France* 12: 180 (1865); *Austromyrtus clusioides* (Brongn. & Gris) Burret, *Notizbl. Bot. Gart. Berlin-Dahlem* 15: 503 (1941). **Type:** New Caledonia *s.dat.*, *E.Deplanche* 525 (holo: P).

This species has a number of distinctive intraspecific taxa that will be described at a later time (Snow, *ined.*).

Gossia colnettiana (Guillaumin) N.Snow **comb. nov.**; *Eugenia colnettiana* Guillaumin, *Mém. Mus. Nat. Paris, ser. B, Bot.* 8: 292 (1962). **Type:** New Caledonia, Mt. Colnett, 13 September 1951, *H.Hürlimann* 1973 (holo: P; iso: Z).

Gossia diversifolia (Brongn. & Gris) N.Snow **comb. nov.**; *Eugenia diversifolia* Brongn. & Gris, *Bull. Soc. Bot. France* 12: 180 (1865); *Myrtus diversifolia* (Brongn. & Gris) Guillaumin, *Bull. Soc. Bot. France* 85: 631 (1939 [1938]). **Type:** New Caledonia, circa Balade, *s.dat.*, *E.Vieillard* 476 (lecto: P n.v. [designated here]).

Myrtus flavida Schltr., *Bot. Jahrb. Syst.* 40, *Beibl.* 92: 30 (1908) (“*flavidus*”), **syn. nov.** **Type:** New Caledonia, near Magenta, *s.dat.*, *A.Le Rat* 2003 (holo: P n.v.).

Type specimens for these names were not located during a visit to P by the first author in 2003. However, the description and numerous specimens leave little doubt to the association of the names with the cited types.

Gossia kuakuense (Baker f.) N.Snow **comb. nov.**; *Psidium kuakuense* Baker f., *J. Linn. Soc. Bot.* 45: 318 (1921). **Type:** New Caledonia, Kuakoué (= Kouakoué), 13 May 1914, *R.Compton 930* (holo: BM).

Psidium floribundum Vieill. ex Guillaumin, *Ann. Mus. Col. Marseille, Ser. II* 9: 150 (1911), *nomen*. **Vouchers:** New Caledonia, Wagap, *s.dat.*, *E.Vieillard 2171 bis* (P [presumably, *n.v.*]; BISH); *s.dat.*, *J.Pancher s.n.*, *n.v.*

Eugenia cataractarum Guillaumin, *Bull. Soc. Bot. France* 85: 636 (1939 [1938]); *Austromyrtus cataractarum* (Guillaumin) Burret, *Notizbl. Bot. Gart. Berlin-Dahlem* 15: 503 (1941), **syn. nov.** **Type:** New Caledonia, bord du torrent, Wagap, *s.dat.*, *E.Vieillard 2171* (lecto: P [designated here]; duplicates of lecto: GH, P).

Psidium floribundum Vieill. ex Guillaumin was named without an accompanying description. The duplicate voucher at BISH is from Vieillard's herbarium and has "bis" written adjacent to the collection number at a later time in a different hand, which may be used to separate it from the lectotype for *Eugenia cataractarum*. Before distribution from Paris another label was affixed to the isotype with the name *E. cataractarum* (published in 1939).

Gossia nigripes (Guillaumin) N.Snow **comb. nov.**; *Myrtus nigripes* Guillaumin, *Bull. Soc. Bot. France* 85: 632 (1939 [1938]); ? *Austromyrtus nigripes* (Guillaumin) Burret, *Notizbl. Bot. Gart. Berlin-Dahlem* 15: 505 (1941). **Type:** New Caledonia, Montagnes situées au sud de Canala, 20 November 1869, *B.Balansa 2085* (holo: P; iso: P).

Gossia pancheri (Brongn. & Gris) N.Snow **comb. nov.**; *Eugenia pancheri* Brongn. & Gris, *Bull. Soc. Bot. France* 12: 180 (1865); *Austromyrtus pancheri* (Brongn. & Gris) Burret, *Notizbl. Bot. Gart. Berlin-Dahlem* 15: 503 (1941). **Type:** New Caledonia, montagnes de Yaté, *s.dat.*, *E.Vieillard 508* (lecto: P [designated here]).

Myrtus luteoviridis Baker f., *J. Linn. Soc. Bot.* 45: 312 (1921) (as "*luteo-viridis*"). ? *Austromyrtus luteoviridis* (Baker f.) Burret, *Notizbl. Bot. Gart. Berlin-Dahlem* 15: 505 (1941), **syn. nov.** **Type:** New Caledonia, Ngoye Mts to NW, 23 May 1914, *R.Compton 1339* (holo: BM *n.v.* [photo at BISH]).

Eugenia angustibracteolata Baker f., *Linn. Soc. Bot.* 45: 313 (1921), **syn. nov.** **Type:** New Caledonia, Presqu'île Bogota, 28 June 1914, *R.Compton 1002* (holo: BM *n.v.* [photo at BISH!]).

Gossia vieillardii (Brongn. & Gris) N.Snow **comb. nov.**; *Eugenia vieillardii* Brongn. & Gris, *Bull. Soc. Bot. France* 12: 180 (1865); *Austromyrtus vieillardii* (Brongn. & Gris) Burret, *Notizbl. Bot. Gart. Berlin-Dahlem* 15: 503 (1941). **Type:** New Caledonia, prope Balade, *s.dat.*, *E.Vieillard 484* (holo: P [barcode P00463006]). The type was annotated by the first author in 2004 as a lectotype, but the label indicating "Arbre; montagnes de Balade" generally matches the description in the protologue, so it is better considered the holotype.

Myrtus prolixa Baker f., *J. Linn. Soc. Bot.* 45: 311 (1921); ? *Austromyrtus prolixa* (Baker f.) Burret, *Notizbl. Bot. Gart. Berlin-Dahlem* 15: 505 (1941), **syn. nov.** **Type:** New Caledonia, *s.dat.*, *R.Compton 393* (holo: BM *n.v.* [photo at BISH]).

Myrtus aneityensis Guillaumin, *J. Arnold Arbor.* 12: 254 (1931); ? *Austromyrtus aneityensis* (Guillaumin) Burret, *Notizbl. Bot. Gart. Berlin-Dahlem* 15: 506 (1941); *Gossia aneityensis* (Guillaumin) N.Snow, *Novon* 15: 478 (2005), **syn. nov.** **Type:** Vanuatu (= New Hebrides), Anelgauhat Bay, 23 February 1929, *S.J.Kajewski 810* (lecto: P [designated by Snow 2005]; duplicates of lecto: BRI, MEL).

Eugenia heckelii Pancher & Sebert [*Not. Bois. Nouv. Calé.* 259 (1874)] may be a synonym of *G. vieillardii* but the first author has not seen a type.

The reduction to synonymy of *Gossia aneityensis* under *G. vieillardii* is significant biogeographically in that it appears to represent the only known species of *Gossia* from New Caledonia (including several other

undescribed species) that is not endemic to the island. *Gossia vieillardii* is the most common member of the genus in New Caledonia and has a bimodal distribution on the northern part of Grande Terre and on ultramafic substrates in the south. In Vanuatu it is common enough to have the vernacular name of “nivic” (Snow 2005). While some variation exists in relative levels of indumentum on the hypanthium, and the base of the mature fruit can vary from round to distinctly tapered, these differences have not been deemed consistent enough to merit recognition of more than one taxon.

Gossia virotii (Guillaumin) N.Snow **comb. nov.**; *Myrtus virotii* Guillaumin, *Mém. Mus. Nat. Hist. Nat., Paris, ser. B, Bot.* 4: 33 (1953). **Type:** New Caledonia, Vallée de la Rivière du Mt. Humboldt, environs de la Case Marc, ancient campement Pages, 13 November 1940, *R. Virot 411* (holo: P; iso: A, NOU, P).

5. New combinations in *Syzygium* Gaertn.

Syzygium thompsonii (Merr.) N.Snow **comb. nov.**; *Eugenia thompsonii* Merr., *Philipp. J. Sci.* 9, C: 121 (1914). **Type:** Guam. *Guam Experiment Station 469* (holo: PNH, lost; lecto: US, selected here [barcode 00118193, viewed digitally; <http://collections.nmnh.si.edu/emuwebbotweb/pages/nmnh/bot/Query.php>]. Since all PNH material from before WWII was destroyed when the Museum was bombed, selection of a lectotype to replace the holotype is desirable.

Eugenia trukensis Hosokawa, *J. Jap. Bot.* 13(4): 63 (1937), **syn. nov.** **Type:** Micronesia, Truk (= Chuuk), Wara Witipen-san, 15 August 1936, *T. Hosokawa 8434* (holo: TAI [illustration seen in Hosokawa 1937: 63]; iso: BISH [sheet no. 164906], L [sheet no. 154985, photograph 62/19, barcode 0009475, and 3 with just sheet numbers: 154817, 154709, 154716; the first can be viewed digitally], TAI [viewed digitally]).

As presently understood, the native range of *Syzygium thompsonii* ranges from Chuuk State (geographical names following Motteler [2006]) in Micronesia to Guam and the Northern Mariana Island on Rota and Saipan. On Guam the species occurs in shaded forests over limestone (Stone 1970). Data from

specimen labels suggest the elevation range is from near sea level to 450 metres (c. 1500 feet) on Rota. The species has rounded to cordate leaf bases, narrowly ovate leaf blades with somewhat sinuous margins, and prominent panicle inflorescences that can be terminal, axillary, or cauliflorous. The fruits are red to dark red. Specimens from Guam tend to have more or less flattened branchlets with buds 11–13 mm long. In contrast, branchlets on specimens from Rota and Saipan tend to be slightly 4-angled and have buds (6–)7–8.5 mm long. Further field studies and additional collections may confirm the need to create a new taxon for specimens from Rota and Saipan, perhaps at the infraspecific level. On Saipan the vernacular name is said to be “atoto” (Stone 1970), whereas the protologue indicates the vernacular name is “atian” for Chuuk.

Syzygium thompsonii is very similar to *S. stelechanthum* (Diels) Glassman, based on gross morphology of the leaf blade and inflorescence of the latter. The first author has seen a paratype (*Ledermann 13473*, BISH) and several specimens of *S. stelechanthum*, which appear to differ most notably from *S. thompsonii* by their longer leaves (up to 42 cm long, e.g. *Takamatsu 578*, BISH) and the presence of distinctly 4-angled or winged internodes. Interestingly, the 4-angled or winged aspect of the branches becomes more prominent in age, which is the reverse of most species in the Myrtaceae that have this trait, wherein (when present) the youngest branchlets tend to be 4-angled and become increasingly terete or flattened with age (e.g. Snow *et al.* 2003: 6). Moreover, the wings of *S. stelechanthum* become lignified with age, which also is atypical for Myrtaceae. When present in *S. stelechanthum*, the wings are most prominent in younger internodes, are widest below the nodes, and are often flared apically.

The known distribution of *Syzygium stelechanthum* in Micronesia is Pohnpei (Pohnpei State [Motteler 2006]) and Kosrae (Kosrae State [Motteler 2006]). On Pohnpei it ranges from 30–610 m elevation and is known locally as “irekinwel” (*Amor 123*, BISH) or “kartenwel” (*Glassman 2364*, BISH). On

Kosrae ("Kusaie" of many older specimens) it occurs in coastal lowland forests or the margins of wetlands to the summit of Mt Matanta at c. 630 metres, where it can be common in dense primary forests (*Fosberg* 26592, BISH). The specimens from Kosrae have the largest leaves on average and the most prominently 4-angled-winged branches (e.g. *Takamatsu* 578, *Stemmermann* 2635, *St. John* 21450 [all at BISH]). A specimen at L (*Stone* 5398) from Ponape, summit of Mt Seletenreh, U Distr., 610 m alt., was identified by Stone himself. The young, terete branchlets are not at odds with our concept of *S. thompsonii*.

Syzygium melastomatifolium (Blume) Veldk. **comb. nov.**; *Jambosa melastomatifolia* Blume, *Mus. Bot.* 1: 102 (1859) (as "*melastomaeifolium*"); *Arbor rubra secunda* Rumph., *Herb. Amboin.* 3: 76 (1743), *nom. inval.*; *Eugenia melastomatifolia* (Blume) Merr., *Bur. Sci. Publ.* 9: 398 (1917) (as "*melastomifolia*"). **Type:** Ambon, *Zippelii* s.n. (holo: L [presumably, but not found]). **Neotype:** Robinson, *Pl. Rumph. Herb. Amboin.* 198 (US [here designated]; iso: A, BM, BO, F, K, L, MO, NSW, NY).

The epithet has been spelled as "*melastomaeifolia*, -um", but the correct orthography is "*melastomat-i-folium*" (compare *Melastomat-a-ceae*), see Rec. 60G.1(a)(1); (McNeill *et al.* 2006).

Syzygium bifarium (Wall.) Veldk. **comb. nov.**; *Eugenia bifaria* Wall., *Pl. Asiat. Rar.* 2: 47, t. 161 (1831); *Jambosa bifaria* Miq., *Fl. Ind. Bat.* 1, 1: 422 (1855). **Type:** Himalaya, *Wallich Cat.* 3605 (holo: K; IDC microfiche 7394).

Miquel (1855: 422) equated this with *Jambosa melastomatifolia* Blume (1849), but we agree with Merrill (1917) that two distinct species are involved here, one from the Himalaya, the other from Ambon.

6. An expanded description of *Rhodomyrtus kaweaensis* N.Snow

Rhodomyrtus kaweaensis N.Snow was first described based on a single gathering (Snow 2006). A second collection bearing fruit has been identified by the first author, which was distributed from LAE as *Timonius* sp. (Rubiaceae). Its discovery permits the

following expanded description of this species.

Trees to 5 metres tall with few branches. Fruits globose, 8.5–11 mm long × 6.5–9 mm wide (dried), silvery green (incompletely mature), moderately to densely appressed sericeous-tomentose, base rounded; bracteoles mostly persistent in fruit; calyx lobes persisting or not. Embryos C-shaped, the distal end of the hypocotyl somewhat swollen; cotyledons narrow, thin, reflexed against the hypocotyl (similar to, but more C-shaped than Fig. 1c in Landrum & Stevenson [1986]).

Additional specimen examined: Papua New Guinea. MOROBE DISTRICT: Mt Kawea, Buso, Apr 1972, *Streimann & Foreman* NGF 24432 (BISH, L; other duplicates reportedly at A, BO, BRI, CANB, K, LAE, NSW, PNH, SING).

The species is now known from an elevation range of 600–800 metres on Mt Kawea. Label data from the specimen cited above reports the plant as being a few-branched tree. As with the type specimen (Snow 2006), the leaves of this specimen are restricted to the distal 10 cm or less of the branches, which gives the living crown of the species an open appearance. The habitat on the present specimen is said to be stunted lowland forest on an exposed ridge over ultrabasic rocks. Mt Kawea is a part of the Bowutu Terrain, whose rocks are of oceanic origin from approximately the middle Cretaceous to the Eocene, and which comprise in part the East Papua composite terrane (Pigram & Davies 1987). The Bowutu Terrain comprises part of the Papuan ultrabasic belt (Takeuchi 2003). Unlike New Caledonia, where ultrabasic rocks are abundant and their influence on vegetation has been well studied, less attention has been directed at the distribution of plants over ultrabasic substrates in New Guinea (Takeuchi 2003).

Although the embryos of the specimen appear to be fully developed (or nearly so), the seed coats, which in *Rhodomyrtus* are usually sclerotic (Snow *et al.* 2008), have not begun to harden and are barely recognizable as such. If this specimen is representative, then the hardening of the seed coats may occur relatively late during the ontogeny of the fruit. The embryos appear to be stacked vertically

in neat rows in the locules, which is typical for many but not all species of *Rhodomyrtus* (Snow *et al.* 2008, in press), although it is uncertain yet whether the fruits develop membranous partitions between the seeds. Thus, for the tabular summary of putatively important vegetative and reproductive characters of *Rhodomyrtus* provided by Snow *et al.* (2008: 692), the only additions that can be made for *R. kaweaensis* at the present time are that the seeds are stacked and that the embryos are C-shaped.

Fruiting is only confirmed for April, but it is likely that fruits can persist from early to mid-August through April or early May, given the flowering date on the type specimen in July (Snow 2006). (Note: Table 1 in Snow [2006] should read *Gossia longipetiolata* N.Snow, not *Rhodomyrtus longipetiolata*. Also, the icons for *Rhodomyrtus kaweaensis* and *R. mengensis* N.Snow in Map 1 were reversed, and Figures 5 and 6 are images of an isotype of *R. mengensis* at BISH, not of the holotype [Snow 2006]).

7. On the identities of *Rhodomyrtus montana* and *R. misimana* in New Guinea

Snow *et al.* (2008) described *Rhodomyrtus misimana* N.Snow and differentiated it from *R. montana* Guym. based on the much sparser indumentum on the abaxial laminar surface of the former, slight differences in adaxial laminar sheen (somewhat glossy in *R. montana*), the widely disjunct distributions of the species, and differences in elevation.

A collection from the east branch of the Avi Avi River near Lakekamu, Gulf Province, Papua New Guinea (*Takeuchi & Kulang 11,390* [NY]) on loan to the first author has an abaxial leaf surface indumentum intermediate in density between *R. misimana* and *R. montana*, which suggests the newer name may need to be merged under *R. montana* or reduced in rank. The Avi Avi collection is from c. 135 m along a low ridge in a Clusiaceae dominated foothill forest. As presently known, *R. montana* is known only from the Arfak and Netotti ranges in the Vogelkop Peninsula of Papua Province, Indonesia, whereas *R. misimana* is known only from the type collection on Misima Island of Papua New Guinea. The

Lakekamu collection is c. 760 km northwest of Misima Island in the foothills on the western fall of the Owen Stanley Range, and c. 1550 km southeast of the Arfak Range. Additional collections are needed to better assess the taxonomic variation among these taxa and specimens. However, because at least 65 base pair differences exist (Snow *et al.* in press) between their aligned nuclear ribosomal ITS sequences (ITS-1, -2, and spacer), based on the single specimen sequenced for each species, no changes in the taxonomy of *R. misimana* and *R. montana* are proposed at the present time.

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